

**CLAIMS:**

1. Centrifuge, in particular, a separator or solid-bowl screw-type centrifuge, having a centrifugal drum in which a separator disc stack consisting of separator discs is arranged, characterized in that the separator discs (1, 2) are subjected at least in sections to a surface treatment changing the surface energy.
2. Centrifuge according to Claim 1, characterized in that the separator discs (1, 2) consist of a first material which, at least in sections, is provided with at least one coating (9, 10) consisting of at least one other material, which coating (9, 10) changes the surface energy in comparison to the first material.
3. Centrifuge according to Claim 1 or 2, characterized in that the separator discs (1, 2) consist of a material into which, at least in sections, another material is diffused which changes the surface energy in comparison to the first material.
4. Centrifuge according to Claim 1, 2, or 3, characterized in that the separator discs (1, 2) are completely surface-treated on the top and/or bottom side.
5. Centrifuge according to one of the preceding claims, characterized in that the surface treatment is adapted to the surface energy of the light or heavy phase to be separated.
6. Centrifuge according to one of the preceding claims, characterized in that the first material is high-grade steel and in that the coating is ceramic.

7. Centrifuge according to one of the preceding claims, characterized in that different zones (9,10) made of different materials are applied to or diffused into different areas of the separating discs (1, 2).

8. Centrifuge according to one of the preceding claims, characterized in that different surface treatments changing the surface energy are carried out above and below the separating discs (1, 2).

9. Centrifuge according to one of the preceding claims, characterized in that different surface treatments are carried out radially inside and outside the separating zone.

10. Centrifuge according to one of the preceding claims, characterized in that different surface treatments are carried out on the separator discs (1, 2) radially inside and outside a rising duct (5).

11. Separator disc for a centrifuge, characterized by at least one surface treatment changing the surface energy at least in sections.